

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**ORDER NO. 2000-45**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
UNITED STATES MARINE CORPS, CAMP PENDLETON  
PLANT NO. 1 (HEADQUARTERS) AND PLANT NO. 2 (SAN LUIS REY)  
WATER RECYCLING FACILITIES  
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. The United States Marine Corps, Camp Pendleton (Base) discharges treated wastewater from Sewage Treatment Plant (STP) No. 2 (San Luis Rey Plant) to the Marine Memorial Golf Course pursuant to Order No. 94-72 and from Sewage Treatment Plant No. 1 (Headquarters Plant) pursuant to the waiver conditions specified in the Water Quality Control Plan, San Diego Basin (9).
2. This Order updates the waste discharge requirements for STP Nos. 1 and 2 for the use of recycled wastewater at the Marine Memorial Golf Course.
3. STP No. 1 has a design capacity of 1.11 MGD. Plant 1 serves Areas 11, 12, 13 and 14 of the Base. Wastewater treatment unit operations and processes at Treatment Plant No. 1 consist of bar screens, comminutors, grit chambers, primary clarifiers, trickling filters, secondary clarifiers, oxidation ponds, and chlorine contact chambers. Facilities for sewage sludge include anaerobic digesters, gas burners, and sludge drying beds. Dewatered sludge is hauled to Camp Pendleton Area 43 where it is disposed of in a Class III landfill. Plant 1 effluent is discharged to a balancing pond. From the balancing pond, the effluent is conveyed to a pond named Horse Lake.
4. STP No. 2 has a design capacity of 0.92 million gallons per day (MGD) and serves Camp Pendleton areas 15, 16, 17, and 18. The sewage treatment facilities at Plant No. 2 include the following: bar screen, grit chamber, primary clarifier, trickling filter, secondary clarifier, chlorine contact tank, and a balancing pond which discharges the treated sewage to Horse Lake. The sludge facilities at Plant No. 2 include an anaerobic digester, gas burner, and four sludge drying beds. The sludge is tested to determine if it can be disposed of at the landfill located on base or if it needs to be disposed of as hazardous material.
5. Water from Horse Lake is used for spray irrigation of the Marine Memorial Golf Course. During the wet season, when the need to irrigate is less, Horse Lake overflows to a second pond, which drains to the Santa Margarita River.

15. This Order complies with the requirements of the Basin Plan.
16. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
  - (a) Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;
  - (b) Other waste discharges;
  - (c) The need to prevent nuisance;
  - (d) Past, present, and probable future beneficial uses of the hydrologic subunits under consideration;
  - (e) Environmental characteristics of the hydrologic subunits under consideration;
  - (f) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
  - (g) Economic considerations;
  - (h) The need for additional housing within the region; and
  - (i) Need to develop and use recycled water.
19. The Regional Board has considered all water resource related environmental factors associated with the proposed discharge of waste.
20. The Regional Board has notified the United States Marine Corps, Camp Pendleton and all known interested parties of the intent to prescribe waste discharge requirements for the proposed discharge.
21. The Regional Board in a public meeting heard and considered all comments pertaining to its proposed discharge.

**IT IS HEREBY ORDERED THAT,** United States Marine Corps, Camp Pendleton (hereinafter discharger), for Plant No. 1 and Plant No. 2, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following for the treatment, storage and disposal of wastewater from Plant Nos. 1 and 2 to the Marine Memorial Golf Course:

## Table 3 notes:

- <sup>1</sup> The 30-day average effluent limitation shall apply to the arithmetic mean of the results all samples collected during any 30 consecutive calendar day period.
- <sup>2</sup> The daily maximum effluent limitation shall apply to the results of a single composite or grab sample.
- <sup>3</sup> The daily maximum concentration shall not exceed 1200 mg/l or the concentration equal to the total dissolved solids concentrations found in the potable water supplies distributed on the Base plus an incremental increase added to the water supply which has been used for domestic purposes.

b) Coliform

The median number of coliform in the effluent shall not exceed the limits set under Title 22, Division 4, Article 4 (Landscape Irrigation), Section 60313 (a), which states that the median number of coliform organisms in the effluent shall not exceed 23 per 100 milliliters as determined from the bacteriological results of the last 7 days for which analyses have been completed and the number of coliform organisms shall not exceed 240 per 100 milliliters in any two consecutive samples.

3. Collected screenings, sludge, other solids removed from liquid wastes, and filter backwash shall be disposed in a manner described in the Findings of this Order or as approved by the Regional Board. Sewage sludge treatment and disposal shall comply with all pertinent paragraphs of Part 503, Subchapter O, Chapter I of Title 40 Code of Federal Regulations.

**C. RECYCLED WATER PURVEYANCE REQUIREMENTS**

1. Within 90 days of adoption of this Order, the discharger must complete all of the following:
  - a. Develop and submit *Rules and Regulations for Recycled Water Use* governing the design and construction of recycled water use facilities and the use of recycled water to the Regional Board, the State Department of Health Services (DHS) and the County of San Diego Department of Environmental Health (DEH). Rules and regulations shall, at a minimum, include the requirements, which are contained in Attachment No. 1 to this Order.
  - b. Develop and submit a program to conduct compliance inspections of recycled water reuse sites to the Regional Board, DHS and DEH. Inspections shall determine the status of compliance with the discharger's rules and regulations for recycled water use.
2. The discharger shall do the following for all reuse sites:
  - a. Enforce recycled water rules and regulations,
  - b. Conduct recycled water reuse site compliance inspections in accordance with the program submitted in compliance with *Recycled Water Purveyance Requirements C.1.b* of this Order,
  - c. Notify the State Department of Health Services and the County of San Diego Department of Environmental Health of any incidence of recycled water

6. OFF SITE DISCHARGES

The discharger shall design, construct, operate, and maintain storage facilities and irrigation areas to prevent surfacing or runoff of wastewater on property not owned or controlled by the discharger.

7. CROSS-CONNECTIONS

The potable water supply shall not be used to supplement the reclaimed water supply except through an approved air gap. In other areas where the potable water supply is piped to premises where sewage is pumped, treated or reclaimed (e.g., sewage treatment plants or pumping stations, golf course, etc.) the potable water supply shall be protected at the property line in accordance with the State Department of Health Services' *Regulations Relating to Cross-Connections*.

9. CAPACITY NOTIFICATION

Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board.

10. MONITORING AND REPORTING

The discharger shall comply with attached Monitoring and Reporting Program No. 2000-45, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2000-45.

**E. STANDARD PROVISIONS**

1. DUTY TO COMPLY

The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

2. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- (c) Any treatment plant upset which causes the effluent limitations of this Order to be exceeded,
- (d) Failure of chlorination equipment or loss of detectable chlorine residual, and
- (e) Effluent total coliform MPN greater than 1600/100 ml in more than one sample.

6. PRIOR NOTICE OF BYPASS

If a need for a discharge bypass is known in advance, the discharger shall submit prior notice and, if at all possible, such notice shall be submitted at least 10 days prior to the date of the bypass.

7. CORRECTIVE ACTION

The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

8. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

9. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control Plan.

- (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

5. CHANGE IN DISCHARGE

The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

- (a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
- (b) Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste.)
- (c) Change in the disposal area from that described in the findings of this Order.
- (d) Increase in flow beyond that specified in this Order.
- (e) Other circumstances which result in a material change in character, amount, or location of the waste discharge.
- (f) Any planned change in the regulated facility or activity which may result in noncompliance with this Order.

6. CHANGE IN OWNERSHIP

This Order is not transferable to any person except after notice to the Regional Board. The discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code.

7. INCOMPLETE REPORTS

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

**G. NOTIFICATIONS**1. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

2. U.S. EPA REVIEW

These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.

3. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

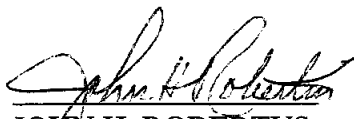
4. ORDER BECOMES EFFECTIVE

This Order shall become effective the date of its adoption.

5. ORDER NO. 94-72 SUPERCEDED

Order No. 94-72 is superceded upon adoption of this Order.

*I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region on May 10, 2000.*

  
JOHN H. ROBERTUS  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. 2000-45  
FOR THE  
UNITED STATES MARINE CORPS, CAMP PENDLETON  
PLANT 1(HEADQUARTERS) AND PLANT NO. 2 (SAN LUIS REY)  
WATER RECLAMATION FACILITIES  
SAN DIEGO COUNTY

**A. MONITORING PROVISIONS**

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Regional Board.
2. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +5 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:
  - (a) "A Guide to Methods and Standards for the Measurement of Water Flow," U. S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 97 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
  - (b) "Water Measurement Manual," U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 127,19/2:W29/2, Stock No. S/N 24003-0027.)
  - (c) "Flow Measurement in Open Channels and Closed Conduits," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273-535/5ST.)
  - (d) "NPDES Compliance Sampling Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver, CO 80225.)
3. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136,

analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
14. Sampling and analysis shall, at a minimum, shall be conducted in accordance with Article 6 of California Code of Regulations, Title 22, Division 4, Chapter 3 (Reclamation Criteria).

## **B. EFFLUENT MONITORING**

1. Plant No. 1 effluent shall be monitored at the flow box located just after the chlorine contact tank and before the equalization basin.
2. Plant No. 2 effluent shall be monitored at the flow box located after the chlorine contact tank and before the equalization basin.
3. The discharger is responsible for monitoring and reporting in accordance with the following schedule:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW RATE	MGD	Continuous	Continuous	Continuous
Biochemical Oxygen Demand (BOD <sub>5</sub> @20°C)	mg/l	Composite	Weekly	Monthly
Total Suspended Solids	mg/l	Grab	Weekly	Monthly
pH	pH Units	Grab	Weekly	Monthly
Total Dissolved Solids	mg/l	Grab	Monthly	Monthly
Chloride	mg/l	Grab	Monthly	Monthly
Sulfate	mg/l	Grab	Monthly	Monthly
Fluoride	mg/l	Grab	Monthly	Monthly
Iron	mg/l	Grab	Monthly	Monthly
Manganese	mg/l	Grab	Monthly	Monthly
Boron	mg/l	Grab	Monthly	Monthly
Total Chlorine Residual (minimum value)	mg/l	Grab	Daily	Monthly

# ATTACHMENT NO. 1

TO

## ORDER NO. 2000-45

### RULES AND REGULATIONS FOR RECYCLED WATER USE PROJECTS

Pursuant to California Water Code (CWC) Section 13523.1(b)(3), this Order requires the discharger to establish and to enforce rules and regulations governing the design, construction and use of recycled water distribution and disposal systems. The rules and regulations shall be consistent with the with the following criteria:

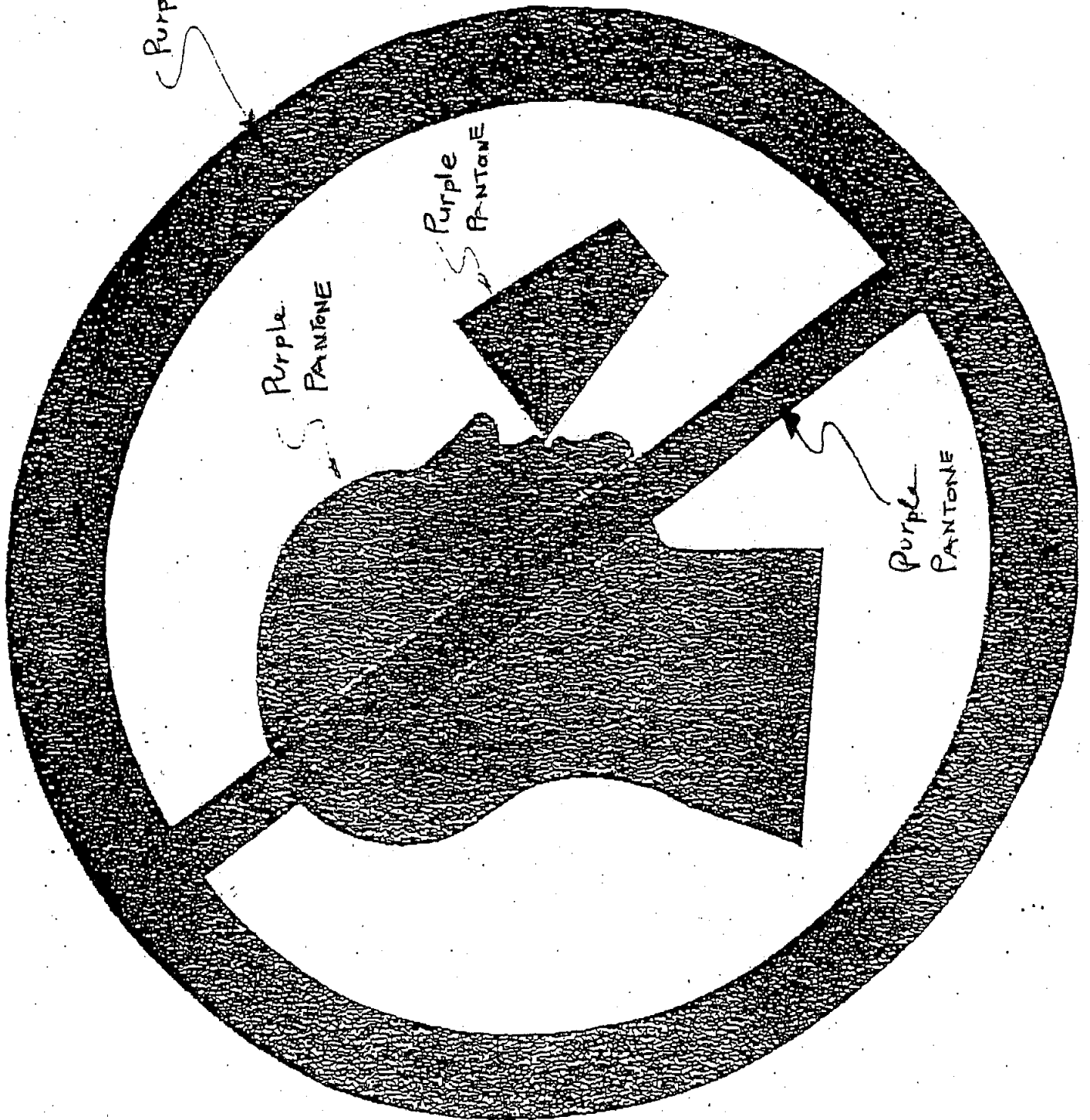
- Title 22, Division 4, Chapter 3, *Wastewater Reclamation Criteria*;
- Title 17, Division 1, Chapter 5, Group 4, Article 1 & 2, of the California Code of Regulations;
- The State Department of Health Services (DOHS) *Guidelines For Use of Recycled Water, Guidelines for Use of Recycled Water for Construction Purposes, and the County of San Diego Department of Environmental Health Recycled Water Plan Check and Inspection Manual*;
- Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada Section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting To Recycled Water* or alternate measures that are acceptable to DOHS.

At a minimum, the rules and regulations shall notify the users that:

1. The use of recycled water shall not cause a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
2. The Regional Board, the State and Local Health Department, or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user is complying with the discharger's rules and regulations.
3. A recycled water supervisor shall be designated who is responsible for the recycled water system at each use area under the user's control. Specific responsibilities of the recycled water supervisor include the proper installation, operation, and maintenance of the irrigation system; compliance of the project with the discharger's rules and regulations, prevention of potential hazards and preservation of the recycled water distribution system plans in "as built" form. Designated recycled water supervisors shall obtain

10. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.
11. Irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary -23 recycled water shall not take place within 100 feet of any domestic water supply well.
12. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.
13. Reclaimed water facilities shall be operated in accordance with best management practices (BMP's) to prevent direct human consumption of reclaimed water and to minimize misting, ponding, and runoff. BMP's shall be implemented that will minimize both public contact and discharge onto areas not under customer control.
14. Irrigation with reclaimed water shall be during periods of minimal human use of the service area. Consideration shall be given to allow an adequate dry-out time before the irrigated area will be used by the public.
15. All drinking fountains located within the approved use area shall be protected by location and/or structure from contact with recycled water spray, mist, or runoff. Protection shall be by design, construction practice, or system operation.
16. Facilities that may be used by the public, including but not limited to eating surfaces and playground equipment and located within the approved use areas, shall be protected to the maximum extent possible by siting and/or structure from contact by irrigation with recycled water spray, mist, or runoff. Protection shall be by design, construction practice or system operation.
17. Spray irrigation with recycled water, other than disinfected tertiary recycled water, shall not take place within 100 feet of the property line of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
18. All use areas where recycled water is used and that are accessible to the public shall be posted with conspicuous signs, in a size no less than 4 inches by 8 inches, that include the following wording: "RECYCLED WATER - DO NOT DRINK". Lettering shall be of a size easily readable by the public. Each sign shall display an international symbol similar to that shown in Figure 1.
19. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.

Figure 1



**FACT SHEET**  
**for**  
**ORDER NO. 2000-45**

**WASTE DISCHARGE REQUIREMENTS**  
**FOR**  
**UNITED STATES MARINE CORPS, CAMP PENDLETON**  
**PLANT 1 (HEADQUARTERS) AND PLANT NO. 2 (SAN LUIS REY)**  
**WATER RECYCLING FACILITIES**  
**SAN DIEGO COUNTY**

**CONTACT INFORMATION**

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**FACILITIES DESCRIPTION**

The United States Marine Corps, Camp Pendleton (Base) operates nine sewage treatment facilities on Marine Corps Base Camp Pendleton. Two of these facilities, Plant No. 1 (Headquarters) and Plant No. 2 (San Luis Rey), produce secondarily treated wastewater for irrigation at the Marine Memorial Golf Course.

On August 11, 1994, this Regional Board adopted Order No. 94-72, Waste Discharge Requirements for the United States Marine Corps, Camp Pendleton, Plant No. 2 (San Luis Rey), Reclamation Facility, San Diego County. Order No. 94-72 established waste discharge requirements for the disposal of disinfected secondarily treated wastewater from Plant No. 2 to the Marine Memorial Golf Course. Plant No. 2 has a design capacity of 0.92 million gallons per day (MGD) and serves Camp Pendleton areas 15, 16, 17, and 18. The sewage treatment facilities at Plant No. 2 include the following: bar screen, grit chamber, primary clarifier, trickling filter, secondary clarifier, chlorine contact tank, and a balancing pond which discharges the treated sewage to a pond named Horse Lake. Water from Horse Lake is used for spray irrigation of the Marine Memorial Golf Course. During the wet season, when the need to irrigate is less, Horse

Lake overflows to a second pond, which drains to the Santa Margarita River. The sludge facilities at Plant No. 2 include an anaerobic digester, gas burner, and four sludge drying beds. The sludge is tested to determine if it can be disposed of at the landfill located on base or if it needs to be disposed of as hazardous material.

On September 3, 1999, the discharger submitted a Report of Waste Discharge in application to discharge secondarily treated effluent from Plant No. 1 to the Marine Memorial Golf Course.

The Report of Waste Discharge was determined complete on September 13, 1999 and the discharger was issued a temporary waiver of waste discharge requirements, as allowed under the Basin Plan, to allow the recycled water use until the Regional Board adopted waste discharge requirements specific to the discharge.

Plant No. 1 is a trickling filter wastewater treatment plant that produces oxidized, disinfected wastewater for recycled use. Plant 1 has a design capacity of 1.11 MGD. Plant No. 1 serves Areas 11, 12, 13 and 14 of the Base. Wastewater treatment unit operations and processes at Treatment Plant No. 1 consist of bar screens, comminutors, grit chambers, primary clarifiers, trickling filters, secondary clarifiers, chlorine contact chambers and oxidation/balancing pond. Facilities for sewage sludge include anaerobic digesters, gas burners, and sludge drying beds. Dewatered sludge is tested to determine if it can be disposed of at the landfill located on base or if it needs to be disposed of as hazardous material.

Plant No. 1 effluent is discharged to a balancing pond. From the balancing pond, the effluent is conveyed to Horse Lake where it mixes with the effluent from Plant No. 2.

This Order establishes requirements for the disposal of treated effluent to the Marine Memorial Golf Course, located at 33° 15' 53" North Latitude and 117° 22' 26" West Longitude, in Section, T10S, R5W, SBB&M, in the Mission Hydrologic Subarea (903.11) of the San Luis Rey Hydrologic Unit (903.00).

Plant No. 1 and Plant No. 2 produce oxidized, disinfected secondary wastewater, acceptable under Title 22 because the Marine Memorial Golf Course is a 'restricted access' facility. There is no public access except during business hours and irrigation of the grounds occurs when the golf course is closed for business.

The proposed use of recycled water complies with the regulations set forth in Title 22, Chapter 3, *Reclamation Criteria*. Staff from this RWQCB, State Department of Health Services and San Diego County Department of Environmental Health inspected the Marine Memorial Golf Course and the treatment facilities on March 17, 2000. The re-use area and the production facilities were found to be compliant with the applicable Title 22 requirements.

Use of recycled water at any other facility is prohibited, unless the Base submits a report of waste discharge for such use and the use of recycled wastewater at the new facility is approved

by the State Department of Health Services and San Diego County Department of Environmental Health and this Regional Board.

### **DISCHARGE DESCRIPTION**

A summary of the effluent quality for Plant No. 1 and Plant No. 2 is shown below. The data is compiled from monitoring reports for July 1998 through June 1999 (except for March 1999).

11 month average, in milligram per liter	BOD	TSS	pH Units	TDS	Chloride	Sulfate	Iron	Manganese	Boron	Fluoride	Fecal Coliform, MPN	Chlorine Residual
Plant No. 1	17.3	12.5	7.6	890	212	234.9	0.13	0.04	.42	0.6	17.34	3.1
Plant No. 2	8.8	19.5	7.2	986	208.2	201.5	0.11	.07	.35	.58	6.5	6.97

### **CHRONOLOGY OF PERMITS**

On May 4, 1987, individual waste discharge requirements (National Pollutant Discharge Elimination System (NPDES) permits) were adopted by this RWQCB for the five wastewater treatment facilities discharging treated waste in the Ysidora Hydrologic Area of the Santa Margarita Hydrologic Unit. The permitted facilities are located at the U.S. Marine Corps Base, Camp Pendleton. The five NPDES permits were scheduled to expire on May 4, 1988.

On January 23, 1989, the United States Marine Corps Base, Camp Pendleton (discharger), was issued Cease and Desist Orders (CDOs) by this RWQCB for violations of the effluent limits contained in the individual 1987 NPDES permits. The CDOs contained time schedules to bring the facilities into compliance with the Comprehensive Water Quality Control Plan for the San Diego Basin (9) (Basin Plan).

On October 10, 1989, the discharger submitted applications for renewal of the five NPDES permits. Order No. 87-07 continued in effect until its reissuance as Order No. 94-51 on August 11, 1994. Compliance was evaluated using the interim effluent limits prescribed in the January 23, 1989 CDOs, and addenda thereto.

On October 28, 1991, this RWQCB adopted Addendum No. 1 to the 1989 CDOs, which set new milestone dates and interim effluent limits effective until compliance with the NPDES permits could be achieved. The date set for compliance with the Basin Plan was October 1, 1994. On November 1, 1993, the discharger was issued a Notice of Violation (NOV) for its failure to comply with the milestone dates in the CDOs and Addendum No. 1. The NOV requested that

the discharger submit a revised schedule to achieve compliance with the 1987 individual NPDES permits for each facility.

On February 4, 1994, the discharger submitted a report with a new time schedule to bring the five facilities into compliance with the CDOs and the 1987 NPDES permits. The new time schedule for completion of construction on the five facilities was established as January 2, 1997. The proposed construction project (P527) consisted of piping the effluent to the City of Oceanside through a new effluent pipeline for discharge into the Pacific Ocean through the City of Oceanside's ocean outfall.

On August 11, 1994, the RWQCB adopted CDO No. 94-52. The CDO reissuance updated the compliance time schedule of the 1989 CDOs, consolidated the requirements, and updated interim effluent limitations. The RWQCB also adopted NPDES Order No. 94-51, which reissued and superceded Order No. 87-07. To conserve staff resources, and in accordance with United States Environmental Protection Agency (USEPA) regulation under Title 40 of the Code of Federal Regulations (CFR) Part 122.28 (40 CFR 122.28), the individual permits for the five Santa Margarita River Watershed Wastewater Treatment Plants were reissued collectively under Order No. 94-51.

On September 12, 1996, the RWQCB adopted Addendum No. 1 to CDO No. 94-52, which authorized a time schedule extension to May 31, 1999. The CDO time schedule modification was adopted by the RWQCB to allow the discharger time to construct facilities that would route the wastewater discharge from the five Wastewater Treatment Plants in the Santa Margarita River Watershed to the City of Oceanside's ocean outfall.

On September 3, 1997, however, the Oceanside City Council voted to deny use of the outfall to discharger. As a result, the discharger then developed a disposal alternative, referred to as the Lemon Grove Percolation Pond Facility, that would have allowed them to comply with the deadline of May 31, 1999. The alternative plan proposed to dispose of the effluent from the five treatment plants to groundwater via percolation beds and sand drains. Modeling of groundwater flows in the proposed disposal area, however, indicated that the groundwater discharge may cause significant impacts to the nearby salt marsh and plant and animal species, some of which are threatened or endangered. The discharger also received correspondence from the United States Environmental Protection Agency (USEPA), US Fish and Wildlife Service, and the California Coastal Commission which conveyed serious concerns with the potential for adversely impacting the Santa Margarita Lagoon and wildlife habitat. Based on the continued opposition from USEPA, the discharger eliminated from further consideration the Lemon Grove Percolation Pond Facility as a viable disposal alternative.

On May 12, 1999, the RWQCB adopted Addendum No. 2 to CDO No. 94-52. Addendum No. 2 extended the compliance date of CDO No. 94-52 to August 11, 1999. It also established July 7, 1999, as an interim milestone date for the completion and submittal of a proposed long-term compliance plan. The extension of the compliance date from May 31, 1999, to August 11, 1999,

was intended to allow the discharger to reinitiate negotiations with the City of Oceanside for the use of its ocean outfall, and to submit a plan and time schedule for final compliance with NPDES Order No. 94-51.

By letter dated July 7, 1999, the discharger reported that negotiations with the City of Oceanside were reinitiated on June 30, 1999. The primary goal of the negotiations was to have a signed agreement between the two parties by December 30, 1999, for the discharger's short-term use of the Oceanside Ocean Outfall. If an agreement could not be reached, then the short-term compliance plan would be abandoned. In this event, compliance would not be achieved until the completion of the long-term compliance project to provide nutrient removal facilities for the wastewater discharges from Wastewater Treatment Plant Nos. 1, 2, 3, 8, and 13.

The July 7, 1999 letter also reported the concurrent development of a military construction project to upgrade and replace existing wastewater treatment facilities to provide tertiary treatment with nutrient removal and a wastewater recycling program. Camp Pendleton estimated that their long-term compliance proposal would be forwarded to Headquarters Marine Corps, Washington D.C., by December 31, 1999, and that full compliance will be achieved with the completion of their long-term compliance project by 2006.

On August 11, 1999, the Regional Board adopted Cease and Desist Order (CDO) No. 99-41 as a reissuance of CDO No. 94-52. The new CDO maintained the interim effluent limits for Total Phosphorus, Total Nitrogen, and Total Dissolved Solids, established a reporting schedule for both the short and long-term compliance plans as outlined in Item 9 of this Order, and ordered full compliance with NPDES Order No. 94-51, as reissued and/or revised, by September 8, 2004.

On July 12, 1999, the discharger submitted an application for the renewal of its NPDES permit pursuant to Reporting Requirement No. 2 of Order No. 94-51. On September 8, 1999, this Regional Board adopted Order Nos. 99-55 and 99-56, NPDES permits for Plant 1 and Plant 2, respectively, for the disposal of secondarily treated effluent to the Santa Margarita River.

**BASIN PLAN WATER QUALITY OBJECTIVES AND BENEFICIAL USES**

The Basin Plan establishes the following beneficial uses for the surface waters of the Mission Hydrologic Subarea (903.11):

**TABLE 1**

BENEFICIAL USES IDENTIFIED IN BASIN PLAN FOR MISSION HYDROLOGIC SUBAREA (903.11)		
BENEFICIAL USES	INLAND SURFACE WATER	GROUND WATER <sup>1</sup>
MUN Municipal and Domestic Supply		X
AGR Agriculture Supply	X	X
IND Industrial Service Supply	X	X
PROC Industrial Process Supply		
GRW Groundwater Recharge		X
FRSH Freshwater Replenishment		
POW Hydropower Generation		
REC-1 Water Contact Recreation	X	
REC-2 Non-Contact Water Recreation	X	
WARM Warm Fresh-Water Habitat	X	
COLD Cold Fresh-Water Habitat		
WILD Wildlife Habitat	X	
RARE Preservation of Rare & Endangered Species	X	
SPWN Fish Spawning		
SAL Saline Water Habitat		
MAR Marine Habitat		

Note:

- These beneficial uses do not apply westerly of the easterly boundary of the right-of-way of Interstate Highway 5. The beneficial uses for the remainder of the hydrologic area are as shown.

The Basin Plan established the following water quality objectives for the Mission Hydrologic Subarea (903.11):

**TABLE 2**

<b>BASIN PLAN WATER QUALITY OBJECTIVES FOR MISSION HYDROLOGIC SUBAREA (903.11)</b>		
CONSTITUENT	Concentration not to be exceeded more than 10 % of the time during any one year period (mg/l or as noted)	
	SURFACE WATER	GROUND WATER <sup>1</sup>
Total Dissolved Solids	500	1500 <sub>2,3</sub>
Chloride	250	500 <sub>2,3</sub>
Percent Sodium	60 %	60 %
Sulfate	250	500 <sub>2,3</sub>
Nitrate (as NO <sub>3</sub> )	----	45 <sub>2,3</sub>
Nitrogen and Phosphorus	*	---
Iron	0.3	0.85 <sub>2,3</sub>
Manganese	0.05	0.15 <sub>2,3</sub>
Boron	0.5	0.5 <sub>2,3</sub>
Odor	None	None
Turbidity	20 UNITS	5 NTU
Fluoride	1.0	1.0 <sub>3</sub>
Color	20 UNITS	15 UNITS

**Notes:**

1. The water quality objectives do not apply westerly of the easterly boundary of Interstate Highway 5. The objectives for the remainder of the hydrologic area (subarea) are as shown.
2. The recommended plan would allow for measurable degradation of ground water in this basin to permit continued agricultural land use. Point sources, however, would be controlled to achieve effluent quality corresponding to the tabulated numerical values. In future years demineralization may be used to treat ground water to the desired quality prior to use.

3. A portion of the Upper Mission Basin is being considered as an underground potable water storage reservoir for treated imported water. The area is located north of Highway 76 on the boundary of hydrologic subareas 3.11 and 3.12. If this program is adopted, local objectives approaching the quality of the imported water would be set and rigorously pursued.
- \* Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/l total P. These values are not to be exceeded more than 10% of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

The discharge of disinfected secondarily treated wastewater to the Marine Memorial Golf Course is an ongoing project and as such is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with Title 14, California Code of Regulations, Article 19, Section 15301. The discharge of disinfected secondarily treated wastewater to the Marine Memorial Golf Course will not have a significant effect on water quality.

### **BASIS FOR TENTATIVE WASTE DISCHARGE REQUIREMENTS**

- (a) Order No. 94-72, *Waste Discharge Requirements for the United States Marine Corps, Camp Pendleton, Plant No. 2 (San Luis Rey), Reclamation Facility, San Diego County*. Order No. 94-72 currently regulates the disposal of disinfected secondarily treated wastewater from Plant No. 2 to the Marine Memorial Golf Course.
- (b) Code of Federal Regulations, Title 40, Part 133
- (c) California Code of Regulations, Title 22, Division 4, Chapter 3
- (d) Water Quality Control Plan for the San Diego Basin

This Order established discharge specifications for Biological Oxygen Demand, Total Suspended Solids and pH based on secondary treatment effluent limitations defined in 40 CFR 133.

This Order establishes discharge specifications for chlorine residual and coliform organisms based on California Code of Regulations, Title 22, Division 4, Chapter 3, Reclamation Criteria.

The requirements of this Order are consistent with Chapter 4, *Implementation of Ground Water Quality Objectives for Reclaimed Water Discharges*, of the Basin Plan. The Basin Plan requires discharge specifications to be established at levels no lower than the quality of the basin's water supply concentration plus an incremental increase added to the supply as a result of domestic use. This Order establishes discharge specifications for Total Dissolved Solids, Chloride, Sulfate, Fluoride, Iron, Manganese and Boron based on this requirement.

The discharge of reclaimed water to the areas authorized under this Order is in conformance with SWRCB Resolution No. 68-16, **Statement of Policy with Respect to Maintaining High Quality of Waters in California**. The existing wastewater reclamation project will:

- a) Have maximum benefit to the people of the State, because in the absence of reclaimed wastewater, alternative water supply would be used for irrigation of the reclaimed water use area described in this Order;
- b) Not unreasonably affect the beneficial uses of ground water in the Mission HSA; and,
- c) Not cause the ground water quality objectives in the Mission HSA to be exceeded.

As specified by California Water Code (CWC) section 13523.2, this Order includes the following:

- Waste discharge requirements adopted pursuant to Article 4;
- Requirements that the permittee comply with the uniform statewide criteria established by the State Department of Health Services pursuant to section 13521 and other applicable permit conditions for the use of recycled water;
- Requirements for the discharger to establish and enforce rules and regulations for recycled water users in accordance with statewide reclamation criteria;
- Requirements for the recycled water agency to conduct periodic inspections of the recycled water use sites; and
- Other requirements determined to be appropriate by this Regional Board.

In accordance with the *Memorandum Of Agreement Between The Department Of Health Services And The State Water Resources Control Board On Use Of Reclaimed Water*, this Order incorporates any conditions of approval submitted as part of the State Department of Health Services' recommendations into water reclamation requirements proposed for adoption by this Regional Board.

The project will make use of recycled water consistent with the goals of California Water Code (CWC), Division 7, Chapter 7, *Water Recycling Law*. Section 13512 of the CWC states the state should encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state.

The sewage treatment facilities were originally constructed in the 1940s. This project is an ongoing project and as such is exempt from the provisions of the California Environmental Quality Act, in accordance with Title 14, California Code of Regulations, Article 19, Section 15301.

This Order prescribes waste discharge and reclamation requirements governing the production and use of reclaimed water, which the Regional Board has determined are necessary to protect the public health, safety and welfare pursuant to California Water Code, Division 7, Chapter 7, Sections 13500-13550 ("Water Reclamation Law")

### **MONITORING AND REPORTING REQUIREMENTS**

Requirements for monitoring and reporting for Plant No. 1 and Plant No. 2 are found in Monitoring and Reporting Program 2000-45.

### **WRITTEN COMMENTS**

Interested persons are invited to submit written comments upon these waste discharge requirements. Comments should be submitted either in person during business hours or by mail to:

John H. Robertus  
Executive Officer  
Attn: Robert Morris  
California Regional Water Quality Control Board  
9771 Clairemont Mesa Blvd., Suite A  
San Diego, Ca 92124-1324

All comments received by May 3, 2000 will be considered in the formulation of determinations.

**PUBLIC HEARING**

In accordance with Section 13263 of the California Water Code, public hearing will be held on May 10, 2000, starting at 9:00 a.m. at:

City of Laguna Beach  
City Council Chambers  
505 Forest Ave.  
Laguna Beach, California

**ADDITIONAL INFORMATION**

For additional information, interested persons may write to the following address or contact John R. Phillips of the Regional Board staff at (858) 627-3928.

Attn: John R. Phillips  
California Regional Water Quality Control Board  
9771 Clairemont Mesa Blvd., Suite A  
San Diego, CA 92124-1324

Copies of the tentative waste discharge requirements and other documents (other than those the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying according to the following schedule (except holidays):

Monday and Thursday:	1:30 p.m. to 4:30 p.m.
Tuesday and Wednesday:	8:30 a.m. to 11:30 a.m. and 1:30 p.m. to 4:30 p.m.
Friday:	8:30 a.m. to 11:30 a.m.